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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 29846-2025

Replacing GB/T 29846-2013

**Photoimageable plating and etching resist for printed circuit
board**

印制板用光成像耐电镀抗蚀剂

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Table of Contents

Preface... III 1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Requirements	2
4.1 Before Imaging	2
4.2 After Imaging	3
5 Test methods	4
5.1 Specimen	4
5.2 Appearance and Dimensions	6
5.3 Viscosity of liquid plating resist	6
5.4 Fineness of Liquid Electroplating Resist	7
5.5 Minimum Line Width and Line Spacing	7
5.6 Resistance to electroplating and chemical plating	7
5.7 Etching resistance	7
5.8 Sealing properties	7
5.9 Color difference	7
5.10 Development Time	7
5.11 Film removal time	7
5.12 Filling capacity	7
6 Inspection Rules	7
6.1 Test conditions	7
6.2 Inspection Classification	7
6.3 Type Inspection	8
6.4 Factory Inspection	9
7 Marking, packaging, transportation and storage	9
7.1 Logo	9
7.2 Packaging	10
7.3 Transportation	10
7.4 Storage	10
References	11

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents". Drafting is required.

This document replaces GB/T 29846-2013 "Photoimageable electroplating resists for printed circuit boards". Compared with GB/T 29846-2013, In addition to structural adjustments and editorial changes, the main technical changes are as follows.

Photoimageable electroless plating resists were deleted from the scope and photoimageable electroless plating resists were added (see Chapter 1, Chapter 1 of the 2013 edition); a) Increased resistance to electroplating resist, chemical plating resistance, dry film photoresist, liquid photoresist, high density interconnected printed circuit boards, The terms and definitions of package substrates (see 3.1, 3.5 to 3.9) have been deleted, including roller coating, screen printing without pattern, dip coating, exposure energy, exposure Terms and definitions for light levels and post-curing (see 3.1 to 3.3, 3.5 to 3.7 of the 2013 edition);

b) Changed the viscosity requirement of liquid electroplating resist before imaging and added the thickness requirement after pre-drying (see 4.1.1, 2013 edition) 4.1);

c) Added the performance, dimensional requirements (see 4.1.2) and inspection methods (see 5.2.1 and 5.2.4.1.1);

d) Changed the minimum line width and line spacing requirements for liquid electroplating resist after imaging (see 4.2.1.1, 4.2.1 of the 2013 edition); e) Added the minimum line width and line spacing requirements for dry film photoresist after imaging (see 4.2.1.2); f) Changed the requirements for electroplating resistance and chemical plating resistance (see 4.2.2, 2013 edition 4.2.2) and the test methods (see 5.6, 2013 edition Version 5.7);

g) The requirements for etching resistance (see 4.2.3, 4.2.3 of the 2013 edition) and the test method (see 5.7, 5.8 of the 2013 edition) have been changed; h) Added the requirements for color difference before and after exposure (see 4.2.4) and the test method (see 5.9); i) Added the requirements for the thickness of the dry film photoresist layer after exposure (see 4.2.5) and the inspection method (see 5.2.4.1.2); j) Added the requirements for the sealing properties of dry film photoresist (see 4.2.6) and the test method (see 5.8); k) Added the requirements for dry film photoresist filling ability (see 4.2.7) and test methods (see 5.12); l) Added requirements for developing time and stripping time (see 4.2.8, 4.2.9) and test methods (see 5.10, 5.11); m) The requirements for test graphic design and specimen preparation have been changed (see 5.1, 2013 edition); n) Adjust the identification test to type test, and add the type test of dry film photoresist (see 6.3, 6.3 of the 2013 edition); o) Adjust batch inspection to factory inspection, and add factory inspection for dry film photoresist (see 6.4, 6.4 of the 2013 edition); p) The requirement for

periodic inspection has been deleted (see 6.4.3 of the 2013 edition); q) Changed the marking, packaging, transportation and storage requirements of liquid electroplating resist (see Chapter 7, Chapter 7 of the 2013 edition); r) Added requirements for marking, packaging, transportation and storage of dry film photoresists (see Chapter 7); s) Deleted the test and calculation of specimen manufacturing and related data (see Appendix A of the 2013 edition).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed and coordinated by the National Technical Committee for Standardization of Semiconductor Equipment and Materials (SAC/TC 203).

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The previous versions of this document and the documents it replaces are as follows.

First published in 2013 as GB/T 29846-2013; This is the first revision.

Photoimageable plating resist for printed circuit boards

1 Scope

This document specifies the performance requirements, inspection rules, marking, packaging, transportation and storage requirements of photoimageable electroplating resists for printed circuit boards.

The corresponding test method is described.

This document applies to photoimageable electroplating and chemical plating resists, photoimageable acid etching and alkaline etching resists used in printed circuit board manufacturing.

2 Normative references

GB/T 191

GB/T 1724

GB/T 2036

GB/T 2421-2020

GB/T 4677-2002

GB/T 5547

GB/T 6672-2001

GB/T 13452.2-2008

3 Terms and Definitions

For the purposes of this document, the terms and definitions given in GB/T 2036 and SJ/T 10668 and the following apply.

3.1 Plating and etching resist

The resist used to form electroplating patterns on the board is usually a dry film or liquid photoresist or a screen-printed or printed resist ink.

3.2 Pre-drying

The process of changing the photoimageable plating resist of printed circuit boards from liquid to solid.

3.3 Plating resistance

The ability of the pattern mask to resist electroplating after the printed circuit board is patterned with a photoimageable electroplating-resistant resist.

3.4 etching resistance

The ability of the mask to resist etching after the printed circuit board is patterned with a photoimageable electroplating resist.

3.5 Chemical plating resistance

The ability of the pattern mask to resist chemical plating after the printed circuit board is patterned with a photoimageable electroplating-resistant resist.